

CLAIMS

What is claimed is:

1. A method for resolving contention issues by a channel in a fibre optic switch environment, said contention issues occurring during channel program execution, comprising:

a channel receiving a status packet indicating that a device is no longer busy, said channel under a device-busy status;

specifying whether said channel intends to re-initiate a channel program that previously resulted in said device-busy status;

if said channel does not intend to re-initiate said channel program, setting a first combination of bits in a re-initiate field of a status-acceptance packet operable for indicating that said channel will take no further action;

if said channel intends to re-initiate said channel program, setting a second combination of bits in said re-initiate field of said status-acceptance packet operable for indicating that said channel will re-initiate said channel program; and

transmitting said status-acceptance packet to a control unit.

2. The method of claim 1, wherein said re-initiate field is associated with a control header of said status-acceptance packet.

3. A method for resolving contention issues by a control unit in a fibre optic switch environment, said contention issues occurring during channel program execution, comprising:

- identifying at least one channel for which said control unit owes a device no-longer-busy status, said control unit in communication with said device;

- sending a status packet to said at least one channel, said status packet indicating said device is no longer busy;

- receiving a status-acceptance packet from said at least one channel, said status-acceptance packet including a re-initiate field; and

- waiting a first period of time for a command initiating a new channel program from said channel if a first combination of bits set in said re-initiate field indicates that said channel intends to re-initiate said channel program.

4. The method of claim 3, wherein said re-initiate field is associated with a control header of said status-acceptance packet.

5. The method of claim 4, wherein a second combination of bits set in said re-initiate field indicate that said channel does not intend to re-initiate said channel program.

6. The method of claim 5, wherein said second combination of bits set in said re-initiate field causes said control unit to perform at least one of:

- sending a no-longer-busy status to a second channel to which said no-longer-busy status is owed; and

- sending a no-longer-busy status to all channels for which said no-longer-busy status is owed.

7. The method of claim 4, wherein a third combination of bits set in said re-initiate field causes said control unit to perform:

waiting a second period of time for a command initiating a new channel program from said channel, said second period of time exceeding said first period of time;

wherein said waiting a second period of time is operable for enabling said new channel program with said first combination of bits set in said re-initiate field to be initiated before said new channel program with said third combination of bits set in said re-initiate field.

8. A storage medium encoded with machine-readable computer program code for resolving contention issues by a control unit in a fibre optic switch environment, wherein said contention issues occur during channel program execution, said storage medium including instructions for causing a computer to implement a method, comprising:

identifying at least one channel for which said control unit owes a device no-longer-busy status, said control unit in communication with said device;

sending a status packet to said at least one channel, said status packet indicating said device is no longer busy;

receiving a status-acceptance packet from said at least one channel, said status-acceptance packet including a re-initiate field; and

waiting a first period of time for a command initiating a new channel program from said channel if a first combination of bits set in said re-initiate field indicates that said channel intends to re-initiate said channel program.

9. The storage medium of claim 8, wherein said re-initiate field is associated with a control header of said status-acceptance packet.

10. The storage medium of claim 9, wherein a second combination of bits set in said re-initiate field indicate that said channel does not intend to re-initiate said channel program.

11. The storage medium of claim 10, wherein said second combination of bits set in said re-initiate field causes said control unit to perform at least one of:

 sending a no-longer-busy status to a second channel to which said no-longer-busy status is owed; and

 sending a no-longer-busy status to all channels for which said no-longer-busy status is owed.

12. The storage medium of claim 9, wherein a third combination of bits set in said re-initiate field causes said control unit to perform:

 waiting a second period of time for a command initiating a new channel program from said channel, said second period of time exceeding said first period of time;

 wherein said waiting a second period of time is operable for enabling said new channel program with said first combination of bits set in said re-initiate field to be initiated before said new channel program with said third combination of bits set in said re-initiate field.

13. A system for resolving contention issues in a fibre optic switch environment, said contention issues occurring during channel program execution, comprising:

- at least one channel operating on a host system, said at least one channel executing a channel program;
- wherein said at least one channel is in receipt of a status packet from a control unit; and
- wherein further, said status packet indicates a no-longer busy status for a device; and
- wherein further, said control unit is in communication with said at least one channel via a fibre optic switch network; and
- a status acceptance packet including a re-initiate field;
- wherein said at least one channel performs:
- specifying whether said at least one channel intends to re-initiate said channel program that previously resulted in a device-busy status;
- if said at least one channel does not intend to re-initiate said channel program, setting a first combination of bits in said re-initiate field of a status-acceptance packet operable for indicating that said at least one channel will take no further action;
- if said at least one channel intends to re-initiate said channel program, setting a second combination of bits in said re-initiate field of said status-acceptance packet operable for indicating that said channel will re-initiate said channel program; and
- transmitting said status-acceptance packet to said control unit.